

A single specimen collected August 11 by Mr. H. S. Barber. Type No. 6661, U. S. N. M.

**Phytomyza palliata**, sp. nov.

Yellow, an ocellar dot, occiput except lower margin, and mesonotum except the sides and hind margin, black, center of sternopleura and bases of abdominal segments, brownish; bristles black; mesonotum opaque, gray pruinose, bearing only a few hairs, four pairs of dorsocentrals; wings hyaline, fourth vein as strong as the third, hind crossvein wanting. Length, 1.5 mm.

*Habitat*.—Mesilla Park, New Mexico.

A single specimen bred from *Portulaca* August 10 by Prof. T. D. A. Cockerell. Type No. 6662, U. S. N. M.

**Phytomyza bicolor**, sp. nov.

Black, the labella, halteres and abdomen except the last segment and base of the preceding, yellow; thorax thinly grayish pruinose, four pairs of dorso-central bristles, the hairs between them numerous, not arranged in rows; wings hyaline, veins yellowish, fourth vein subhyaline, noticeably more slender and less distinct than the third, hind crossvein wanting. Length, 3 mm.

*Habitat*.—Niagara Falls, New York.

A single specimen collected June 23 by Mr. C. W. Johnson. Type No. 6663, U. S. N. M.

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NEW FORMS OF CULICIDÆ FROM NORTH AMERICA.

BY D. W. COQUILLET.

**Corethrella**, gen. nov.

Near *Corethra* and *Mochlonyx*, but differing from both in having the antennæ wholly covered with hairs and the apical joints shorter than the intermediate ones. Antennæ 14-jointed, the first joint unusually large, bulbous, twice as wide as long, the remaining joints slender, elongate, wholly covered with hairs, which are very dense in the male but very sparse in the female, in both with a sparse whorl of bristles near base of each joint, the second joint with an additional whorl before the middle, the hairs and bristles noticeably sparser and shorter on the last three joints than on the preceding ones, hairs on the sixth joint in the male over four times as long as that joint and but slightly shorter than the bristles, in the female the longest hairs on the sixth joint are about half as long as that joint and about one-fourth as long as the bristles, antennæ only slightly thickened at the insertion of the whorls of bristles, second joint slightly longer than the third, about four times as long as wide, joints three to eleven becoming successively a trifle longer, the last three

joints each slightly shorter than the eleventh; proboscis scarcely longer than height of head, palpi inserted slightly beyond its middle, nearly twice as long as the proboscis, eyes widely separated, deeply emarginate opposite insertion of antennæ, no ocelli, first tarsal joint much longer than the second, venation as in *Culex*. Type *Corethra brakeleyi* Coquillett.

The radical structural differences existing between the larva of the present form and that of a typical species of *Corethra* have already been commented upon by Prof. J. B. Smith, and are clearly shown in the excellent figures published by Dr. Dyar in the present number of the JOURNAL. This and the further fact that the structure and pilosity of the antennæ of the adults are markedly different, clearly indicate the desirability of separating these two forms into distinct genera.

#### **Anopheles eiseni**, sp. nov.

Near *maculifennis*, but with a patch of whitish scales on the first vein before its middle and another at its apex, also the apical fourth of the hind tibiæ is yellowish-white. Black, the stems of halteres whitish, coxæ and a vitta on lower part of pleura, yellow, femora yellowish-brown, apical fourth of hind tibiæ yellowish-white; antennæ of male whitish, the first joint, last two and fascia on each of the others, brown; scales of palpi black, those at apex and two bands in the female, three in the male, white; scales of occiput black, those in middle of upper part white; mesonotum grayish pruinose, marked toward each side with a velvet black vitta; scales of abdomen black, the hairs yellowish, scales of femora and tibiæ mixed black and whitish, those on the apical whitish portion of hind tibiæ white, those on the tarsi black; tarsal claws of female simple; wings hyaline, the veins and scales brown, a dense patch of black ones at base of second vein, a larger one on the crossveins and a small one at bases of first submarginal and of second posterior cell, a small patch of yellowish-white scales on first vein before its middle and another at its apex, the latter spot encroaching upon the costal vein. Length, 3.5 mm.

*Habitat*.—Aguna, Guatemala (2,000 feet altitude).

One female and two males received by Dr. L. O. Howard from Professor Gustav Eisen, of San Francisco, Cal., who has brought to light several interesting forms in this family, and to whom this species is respectfully dedicated. Type No. 6699, U. S. National Museum.

#### **Culex dyari**, sp. nov.

Near *sylvestris*, but with a pair of bare vittæ on the mesonotum, simple tarsal claws in the female, etc. Dark brown, thorax more reddish-brown, stems of halteres, coxæ and greater portion of posterior side of femora, yellow; antennæ of male largely white on the intermediate short joints, the plumosity brown, with a yellow base; scales of palpi brown, the female having those at the apices white, the male with four rings of whitish ones, last joint of male palpi dilated, scales of occiput narrow, yellowish, a large patch of broad whitish ones on each side, the upright ones black; scales of

thorax light yellowish, those of the abdomen black and with a broad band of yellowish-white ones at base of each segment; scales of legs black, mixed with a few yellow ones, those on the coxæ, on posterior side and at apices of femora and tibiæ, and at each end of the first three joints of the tarsi, yellowish-white; front tarsal claws of male bearing two teeth beneath one of the claws and one tooth beneath the other; wings hyaline, veins and scales brown, many of the lateral scales on the auxiliary and first veins are rather broad and distinctly taper to the base, the other lateral scales chiefly elongate, narrow and almost linear, second basal cell much shorter than the first, petiole of first submarginal cell over one-third as long as that cell. Length, 4 mm.

*Habitat.*—Center Harbor, N. H.

Three females and one male bred by Dr. H. G. Dyar, whose patient investigation of the larvæ of this family has resulted in a better understanding regarding the limits of the species, and to whom this unique species is respectfully dedicated. Type No. 6700, U. S. N. M.

#### **Culex melanurus**, sp. nov.

Near *pipiens*, but without distinct bands of light-colored scales at bases of the abdominal segments, the lateral scales on the wing veins rather broad and distinctly tapering at the base, etc. Black, the stems of the halteres and posterior and under sides of the femora, yellow, the intermediate short joints of the male antennæ largely white, palpi of male not dilated; scales of occiput narrow, yellowish-white, a patch of broad white ones on each side, the upright ones black, scales of mesonotum golden yellow, those of the abdomen violaceous brown, a small patch of white ones at front angles of the segments beyond the second, those on middle of venter yellowish-white, scales of legs purplish-brown, in certain lights with a brassy tint, those on the yellow portion of the femora whitish; tarsal claws of female simple, the front and middle ones in the male one-toothed; wings hyaline, second basal cell much shorter than the first, petiole of the first submargined cell nearly one-third as long as that cell. Length, 3.5 mm.

*Habitat.*—Center Harbor, N. H.

Two females and two males bred by Dr. H. G. Dyar. Type No. 6701, U. S. N. M. The specific name was given in allusion to the distinctly blackish anal tube of the larva.

#### **Culex trivittatus**, sp. nov.

Near *triseriatus*, but with three vittæ of blackish scales on the mesonotum. Black, the first joint of antennæ and base of second, the coxæ and greater portion of femora, yellow; scales of palpi black, those on the occiput light yellow, a large patch of dark gray ones on each side of the middle, the upright ones yellow; scales of mesonotum brassy yellow and with three broad vittæ of blackish ones, the median vitta not quite extending to either end of the mesonotum; scales of abdomen black, those at the front angles of the segments and on the venter whitish; scales of legs black, those on the coxæ and on the posterior side of the femora and tibiæ, covering nearly the whole of the hind femora, yellowish-white; tarsal claws rather large, one-toothed; wings hyaline, lateral elongated scales of the veins narrow and almost linear,

second basal cell shorter than the first, petiole of first submarginal cell nearly one-half as long as that cell. Length, 4 mm.

*Habitat.*—Chester, New Jersey.

Two female specimens collected September 10 and 14 by Prof. J. B. Smith. Type No. 6702, U. S. N. M.

## ILLUSTRATIONS OF THE LARVÆ OF NORTH AMERICAN CULICIDÆ.—II.

BY HARRISON G. DYAR, PH.D.

(PLATES XVI-XIX.)

I have previously published illustrations of four species of Culicidæ in this journal (Journ. N. Y. Ent. Soc., IX, 177-182, 1901); the present paper is a continuation of the subject.

### **Culex canadensis** *Theobald.*

*Eggs.*—Laid singly, not adherent, scattered or adhering in irregular masses by surface tension only. Fusiform, the ends rounded, the greatest diameter at the third nearest the micropyle; one side flattened. Entirely black, covered with clear granules which rest in reticular hollows of the surface; a small colorless cushion at the micropyle. Length, .8 mm.; diameter, .2 mm.

*Stage I.*—Head rounded, darkly infuscated, antennæ slender, uniform, the tuft at the middle of the joint slight; dark throughout. Body hairs normal, simple; air tube colorless at the base, the terminal third darkly infuscated, the line dividing these areas sharp, oblique; a sparse double pecten on the clear part. Anal segment with a dorsal dark plate and terminal tuft; no ventral brush. Lateral comb of the eighth segment a series of simple thorn-shaped spines, about 6 in number, in a straight transverse row.

*Stage II.*—The head is pale brown rather than blackish. Antennæ all brown, the slight tuft at the middle of the joint. Body hairs stouter, with distinct basal tubercles on the thorax. Air tube completely chitinized, brown with a double pecten on the posterior basal half, followed by a little hair tuft. Tube conically tapered, about two and a half times as long as wide. Anal segment with a broad dorsal dark plate, terminal tuft and small ventral brush arising from a transversely barred area at the tip of the segment; also several small